GUIDELINES FOR INSPECTION OF HORSES DUE TO EHV-1 OUTBREAK

- PARK AS FAR AWAY FROM THE BARN AND STABLE AREAS AS POSSIBLE
- REQUEST THAT THE HORSE OR HORSES TO BE LEAD OUT OF THE BARN OR STABLE AREA TO THE PARKING LOT OR DRIVEWAY FOR THE INSPECTION
- DO NOT TOUCH THE HORSE, LEAD ROPE OR OTHER TACK IF AT ALL POSSIBLE
- COMPLETE THE INSPECTION PAPERWORK AT YOUR VEHICLE AND TRY TO KEEP CONTACT AT A MINIMUM
- USE HAND SANITIZER OR DISINFECT YOUR HANDS AND BOOTS WITH A STERILE MIXTURE UPON LEAVING ONE FACILITY AND ENTERING THE NEXT FACILITY
- A STERLILE MIXTURE OF "ONE PART VINEGAR AND FOUR PARTS WATER" CAN BE PUT IN A SPRAY BOTTLE TO BE USED.
- UPON RETURNING HOME, REMOVE AND WASH ALL CLOTHING WORN FOR INSPECTION APPOINTMENTS. REMOVE AND ISOLATE BOOTS WORN FOR INSPECTIONS. BOOTS SHOULD ALSO BE DISINFECTED.
- BEFORE HANDLING YOUR LIVESTOCK, CHANGE CLOTHING AND BOOTS.
- SANITIZE HANDS BEFORE ENTERING YOUR LIVESTOCK AREA

ATTACHED ARE SOME DOCUMENTS CONCERNING EHV-1

- BROCHURE ON BIOSECURITY – THE KEY TO KEEPING YOUR HORSES HEALTHY
- URGENT RESPONSE DOCUMENT FROM CSU

FOR ANY HORSE INSPECTIONS GOING OUT OF STATE, PLEASE ADVISE THE LIVESTOCK OWNER TO CONTACT THEIR LOCAL VETERINARIAN OR THE STATE VETERINARIAN IN THE STATE OF DESTINATION FOR UP TO DATE INFORMATION.

FOR ANY QUESTIONS CONCERNING THE EHV-1 OUTBREAK CALL THE STATE VETERINARIAN OFFICE AT 303.239.4161.

Using Disinfectants

How To Disinfect
Surfaces must be clean for disinfectants to work. Brush off loose dirt and manure. If possible, wash the item with detergent first (laundry or dish soap works well) and then use a disinfectant. Most grooming tools can be dipped in disinfectant. Tack can be wiped with a disinfectant wipe or a disinfectant-dampened cloth. Shoes can be brushed or scrubbed off and then sprayed with disinfectant.

Examples of Disinfectants
Household Bleach—Mix ¾ cup of bleach per gallon of water. If you don't have a measuring cup handy, you can mix 1 part bleach to 10 parts water. This formula works for shoes, grooming equipment, buckets, shovels, and pitchforks. When you use bleach, make sure all dirt and manure have been cleaned off first.

Spray Disinfectant—Be sure the label says it kills bacteria and viruses. Sprays can work well on shoes, grooming equipment, and tack. Try to remove all manure and dirt before spraying.

Waterless Hand Sanitizers—They come in gels or hand wipes. These are good for use at a show or after visiting other horses. Be sure to work the cleaner all through your fingers and under the nails.

Other Disinfectants—Always mix and use according to the label. Two examples are One Stroke Environ® (available from Steris Corporation) and Tek-trol® (from Bio-Tek Industries). These both work well even if there is a little manure or dirt left on the surface. These are good choices for disinfecting trailers and car tires, and they also work well in footbaths.

Note: Trade names used in this publication do not constitute an endorsement, guarantee, or warranty of these products. USDA bears no responsibility resulting from the use of the described products. These procedures are not guaranteed to prevent highly contagious diseases from affecting your horses, however, they will reduce the risks.

APHIS file photo

Making an Easy Footbath

You will need:

1. A low plastic pan or bin, wide enough to fit an adult's foot, shallow enough to step into easily
2. A plastic doormat (the "fake grass" mats work well)
3. A disinfectant that works when manure or dirt is present, such as Tek-trol or One Stroke Environ
4. Water

Mix the disinfectant with water following label instructions. Put the doormat in the plastic pan. Add disinfectant so that the bottom of the "grass" is wet. Ask visitors to walk through the footbath, wiping their feet on the mat. The "grass" scrubs their shoes a bit as they wipe them, and applies the disinfectant. When the liquid starts to get dirty, empty it and put in new disinfectant.

Cover photo: APHIS photo by Norman Watkins.

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You Are the Best Protection Your Horses Have

USDA
United States Department of Agriculture
Animal and Plant Health Inspection Service

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Biosecurity—The Key to Keeping Your Horses Healthy

Biosecurity means doing everything you can to reduce the chances of an infectious disease being carried onto your farm by people, animals, equipment, or vehicles, either accidentally or on purpose.

APHIS photo by R. Anson Eaglin.

Showing Your Horse

- Use your own trailer. Don't ship your horses with horses from other farms.
- Ship only in a trailer that has been cleaned and disinfected. If you can "smell horse" in the empty trailer, it has not been cleaned and disinfected properly.
- Don't let your horse touch other horses, especially nose to nose.
- Don't share equipment (e.g., water, feed buckets, brushes, or sponges).
- Wash your hands, especially after helping other people with their horses.
- Don't let strangers pet your horse, especially those with horses at home or people who have been out of the country in the past 2 weeks.
- Before leaving the show grounds, clean and disinfect tack, boots, equipment, and grooming supplies. Brush off dirt or manure; then disinfect (spray or wipes are easy to take with you).
- When you get home, shower, blow your nose, and put on clean clothes and shoes before going near other horses.

Visiting Other Farms, Horse Shows, or Auctions

- Have a pair of shoes or boots that you save for visiting and don't wear around your own horse.
- Wear plastic shoe covers. Plastic bags from newspapers work well.
- If you are going to be working with horses on another farm, wear coveralls or plan to change clothes before returning to your horse.
- If there are farms you visit all the time and you can't change clothes and shoes, be sure their vaccination program and biosecurity practices are as good as your own.

USDA photo by Bill Tarpenning

For Visitors to Your Farm or Horse

- It is best to have only one way into your farm. Mark this as the main entrance.
- Park away from the horses. Doing that will help keep disease-carrying organisms from being tracked from car floors or tires to your horses.
- If the farrier or veterinarian needs to park closer, be sure their tires and shoes have been disinfected.
- Ask all visitors to wear clean clothes and shoes. Give visitors plastic shoe covers, or brush dirt off their shoes and spray them with disinfectant.
- If you have many visitors, such as at a farm tour or open house, make a footbath for them to walk through.

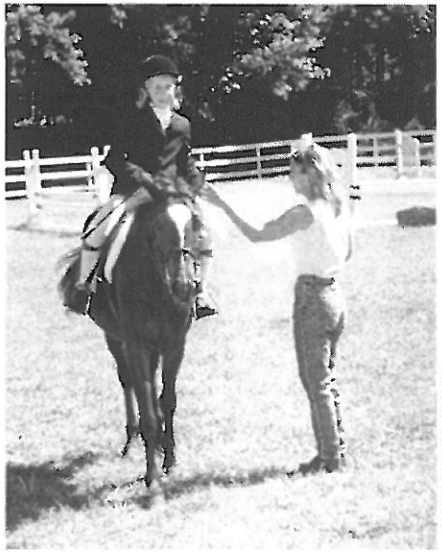
Bringing Horses Back From a Show

- If one horse has been shown, all your horses need to be vaccinated. Horses that show can bring home germs. Discuss what vaccinations the horses need, and how often, with your veterinarian.
- If possible, keep horses which were off the farm isolated for at least 2 weeks. Make sure there is no nose-to-nose contact.

Bringing in New Horses

This is the most likely way for infectious diseases to come in.

- Keep every new horse isolated for 30 days. Don't use pitchforks, grooming tools, or feed and water buckets on any horse but the new one. Mark these with red tape, or use red brushes, etc., only for the isolation area.



USDA photo by Bill Tarpenning

- Work with the isolated horse last each day. Alternatively, wear boots and coveralls when working with the isolated horse and remove them before working or going near other horses. You can keep these in a plastic-covered tub near the horse.
- Always wash your hands and blow your nose after working with the new horse. You could carry germs to your other horses in your nose.

You Are the Best Protection Your Horses Have

Outbreak of neurological disease caused by EHV-1

May 15th, 2011

URGENT RESPONSE INFORMATION AND RESOURCES

Currently, there are numerous reports of equine herpesvirus myeloencephalopathy (EHM) affecting horses and farms in Colorado and several other Western states. This outbreak appears related to initial cases at a Cutting horse show in Ogden Utah, which was held from April 29th – May 8th. Horses at that event may have been exposed to this virus and subsequently spread the infection to other horses. While the true extent of this disease outbreak is uncertain, there is clearly a very significant elevated risk of EHM cases at this time. At this time control of the outbreak is critically dependent on biosecurity. We want to address four Frequently Asked Questions in this document:

1. How do we handle horses returning from events where they may have been exposed to this infection?

- For horses that may have been exposed to the risk of infection, there are some steps to take to mitigate the risk at their home facility. Even if these horses are returning home from events at which no disease was reported, and even if these horses appear healthy, precautions are needed at this time as these horses could bring it home and spread it at their home farm – this is the classic way this disease spreads:
    - These horses should be isolated from any other horses when they return to their home facility. Isolation requires housing them away from other horses, using different equipment to feed, clean and work with them that is used with any other horses, and rigorous hygiene procedures for horse handlers (hand hygiene, wearing separate clothes when contacting the horses, etc.). Please discuss this with your veterinarian.
    - We strongly advise owners to call their vets to discuss how long to keep the horses isolated at home, but even if they don't develop fevers this should be at least 14 -21 days.
    - These horses should have their temperature taken twice a day, as temperature is typically the first and most common sign of infection – horses with elevated temperatures (101.5 F or greater) should be swabbed by your vet to find out whether they are shedding EHV-1.
    - If a horse develops a fever and is found to be shedding EHV-1 then the level of risk to other horses on the premises increases significantly. Those affected farms should work closely with their veterinarian to manage that situation, if it develops.
    - The AAEP has published an extensive set of "Infectious Disease Control" guidelines on its website, in the member section, that can be used for a more detailed response.

2. What do we do if we already have a potentially exposed horse on a farm?

- It still makes sense to isolate this horse from other horses, even though it may have already been in contact with them, start isolation procedures to stop further exposure. It is very important to not mix horses from different groups to accomplish this. Try and isolate the

suspect horse without moving other horses from one group to another – segregation of horse groups is the key, because this will help you reduce spread if an outbreak starts.

- Check temperatures of all horses on the farm twice daily (fever spikes can be missed if you check once daily). If fevers are detected, then test for EHV-1.
- The value of starting healthy horses on anti-viral treatment when there is no evidence of disease on the farm is questionable. The treatment is expensive, the drug (Valtrex™ - valacyclovir) may have limited availability, and prophylactic therapy against EHM will only work while drug is being administered. Therefore it is more likely to be effective if administered when fever is first detected (see below).

3. What anti-viral treatments can I use against EHM on a farm?

- If EHM is present on a farm, then the risk to other horses at that farm is greatly increased. Stringent quarantine and biosecurity procedures must be implemented immediately.
- Treatment of horses with clinical neurological disease (EHM) is largely supportive – the use of anti-viral drugs is not known to be of value at this stage. Use of anti-inflammatory drugs is recommended: flunixin meglumine (0.5 to 1 mg/kg, IV, q 24 hours).
- For horses on the farm that develop fever, test EHV-1 positive, or have a high risk of exposure, anti-viral drugs may decrease the chance of developing EHM.
- Currently, the treatment of choice in a febrile EHV-1 infected horse to prevent the development of EHM is Valacyclovir (Valtrex™), given orally. The use of oral acyclovir is unlikely to be of any value, as it is not absorbed from the GI tract.
- We currently recommend Valacyclovir (Valtrex™) for prophylactic therapy at a dose of 30 mg/kg q 8 hr for two days, then 20 mg/kg q 12 hr for 1-2 weeks. Maintain on higher dose rate if the horse is still febrile. This is an expensive drug, and daily treatment costs can typically be $20-300 per day. Generic forms of Valacyclovir may be available, and may be marginally cheaper.
- The use of Valacyclovir in horses that have already developed signs of EHM is questionable at this time, in that circumstance the use of intravenous Ganciclovir is preferable as it may have greater potency against the disease. The dose of Ganciclovir is 2.5 mg/kg q 8 hr IV for one day then 2.5 mg/kg q 12 hr IV for one week.

4. Is there any value to using booster vaccination against EHV-1 at this time.

- Unfortunately, there is no evidence at this time that current EHV-1 vaccines can prevent EHM.
- The more potent EHV-1 vaccines have been shown to reduce nasal shedding and in some cases reduce viremia. These products may therefore have some theoretical value against EHM (by reducing viremia), and certainly against spread of the virus.
- The more potent EHV-1 vaccines include: Rhinomune®, *or* Calvenza™ EHV, Boehringer Animal Health; Pneumabort-K®, Pfizer Animal Health; Prodigy™ Intervet Schering-Plough Animal Health.
- If horses on the farm are previously vaccinated against EHV-1 then booster vaccination should quickly increase immunity, and perhaps reduce spread of EHV-1 if it is present.

- Vaccination in these circumstances is controversial, as some authorities speculate that immunity to EHV-1 may play a role in the development of EHM. While this is unproven, it remains a possibility. The use of vaccination is therefore a risk-based decision.

Additional sources of information are listed below. Until we know more about this outbreak, caution is recommended at all times to reduce spread of infection. Movement of horses on and off farms should be limited whenever possible.

Sources of information:

Brochure you can give to clients:

http://www.aphis.usda.gov/vs/nahss/equine/ehv/equine_herpesvirus_brochure_2009.pdf

Websites with well organized EHV-1 information:

University of California, Davis, School Vet Med – detailed and practical information about handling sick horses, diagnostic testing, and control

http://www.vetmed.ucdavis.edu/ceh/ehv1_general.cfm

Background paper:

ACVIM EHV-1 consensus statement – current detailed information about the virus, neurological disease, and control.

http://onlinelibrary.wiley.com/doi/10.1111/j.1939-1676.2009.0304.x/pdf

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